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**A NEW SPECIES OF ACAROPSELLA VOLGIN FROM
THE NEST OF A TURKEY VULTURE**

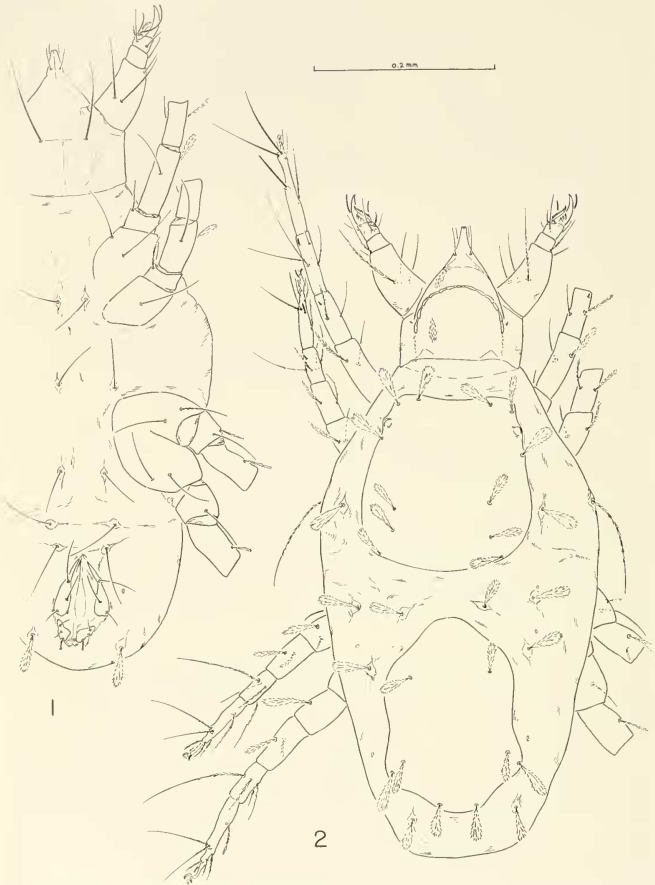
(ACARINA: CHEYLETIDAE)

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ABSTRACT—A new species of cheyletid mite from the nest of a turkey vulture in California is described. The species, *Acaropsella schmidtmanni*, has features which suggest an affinity to both *Acaropsis* Moquin-Tandon and *Acaropsella* Volgin. These features are discussed, and reasons for assignment to *Acaropsella* are presented.

V. I. Volgin (1969) erected the genus *Acaropsella* to accommodate a group of three species formerly included in the related genera *Acaropsis* Moquin-Tandon and *Neocaropsis* Volgin. The three genera are similar in having a reduced, inner comb on the palp tarsus. In *Acaropsis* this sensillum is a simple seta, without barbs, whereas in *Neocaropsis* and *Acaropsella* it bears a few fine barbs or teeth. Further, the dorsal idiosomal setae in *Acaropsis* are acicular to narrow lanceolate, whereas in *Neocaropsis* and *Acaropsella* they are spatulate in form. The monotypic genus *Neocaropsis* is set aside on the basis of prominent basal apophyses on the claws of tarsi II to IV. Other lesser differences between these genera are presented in recent reviews by Volgin (1969) and Summers and Price (1970).

The species described has features which suggest a position intermediate between *Acaropsella* and *Acaropsis*. It resembles *Acaropsella* in having a finely-toothed inner comb on the palp tarsi and spatulate dorsal setae on the idiosoma. It resembles *Acaropsis* in having long humeral setae which differ markedly from those on the dorsal idiosoma.



Figs. 1-2. *Acaropsella schmidtmani*, n. sp.: 1, female, ventral aspect; 2, female, dorsal aspect.

Since the structure of the combs on the palp tarsus and the shape of the dorsal setae have greater significance in cheyletid systematics than the nature of the humeral setae, this species is included in *Acaropsella*. Its assignment to this genus seems preferable at this time to the creation

of another monotypic cheyletid genus to accommodate an intermediate form.

Acaropsella schmidtmani, n. sp.

Female.—Rostrum narrow, pointed; with 1 pair dorsal and 1 pair ventral, adoral setae, subequal in length. Peritremes with about 7 chambers on each side, smoothly arched posteriorly. With 1 pair long, acicular, subcapitular setae. Tegmen and protegmen with faint, longitudinal pattern of bacillus-like striae. Palp tarsus with 2 sickle-like and 1 orthodox comblike sensillae. Inner comb homologue with a few fine barbs on inner face, not comblike in usual sense. Tibial claw with 3 (rarely 4) basal teeth. Tibia with 1 dorsal and 2 ventral acicular setae. Genu with 1 dorsal seta near outer margin. Femur with 1 long (85.6μ)¹, barbed seta on dorsal surface, 2 acicular ventral setae, and 1 lateral seta near base of genu.

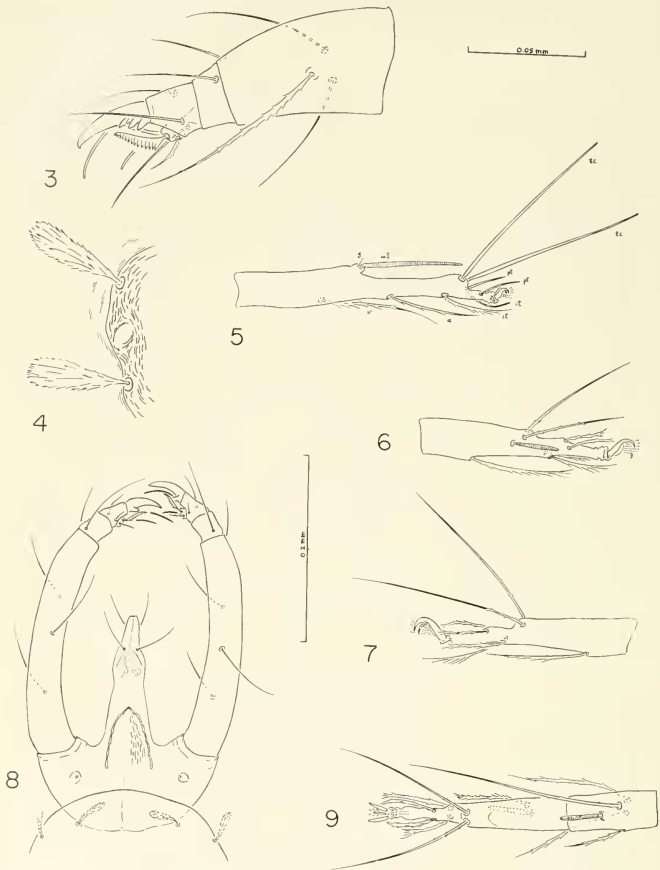
Propodosomal plate with 6 pairs of spatulate setae; the anterior group of 3 are marginals, the posterior group of 3 are medians. Preocular marginal setae 46.0μ long. Fourth marginals on separate platelets. Eyes present. Humeral setae long (127.7μ), barbed on basal half, differ significantly from dorsals. With 1 pair of acicular setae on venter between coxae II. Hysterosomal plate somewhat reduced, with only 4 pairs of spatulate setae. First pair of dorsomedians and first 2 pairs of dorsolaterals borne on small platelets. With 2 pairs of spatulate setae posterior to plate; 1 pair set near the plate (apparently the fourth dorsolaterals), and 1 pair located ventrally in para-anal position. With 1 pair acicular setae on venter between anterior margins of coxae III. Three pairs acicular setae on venter in mid-region between coxae IV and genital area. With 3 pairs acicular genital setae, and 3 pairs of anal setae. Anterior pair anal setae smooth, middle pair with a single barb, and hind pair strongly barbed.

Body length to tip of rostrum 697μ , gnathosoma length 171μ . Leg measurements I to IV respectively, from coxo-trochanteral joint to claw tips: 365μ , 263μ , 279μ , and 340μ . All claws are smooth hooklets, without basal apophyses, with rayed empodia.

Tarsus I with long (46.8μ) solenidion (*w*I) in mid-dorsal region, reaches to bases of acicular addorsals (*tc*). With a minute (4.5μ) guard seta (*g*). Two pairs of acicular paraterminals (*pt*) on tarsal pedicel, and 2 pairs of infraterminals (*it*). Proximal infraterminal strongly barbed or frayed at tip, distal infraterminal smooth. First ventral (*v*) and second ventral or azygos seta (*a*) barbed or frayed at tip. Tibia I with a dorsal solenidion and 5 tactile setae. Genu I with a minute dorsal solenidion and 2 tactile setae. Tarsus II with a solenidion (*w*II) in lateral position near bases of addorsals. Tibia II with a small distal solenidion and 4 tactile setae. Tibiae III and IV each with a long barbed seta (133.9μ on tibia IV) and 3 other, shorter, tactile setae. Setal counts including solenidia on legs I-IV are: tarsi, 10-8-7-7; tibiae, 6-5-4-4; genua, 3-2-2-2; femora, 2-2-2-1; trochanters, 1-1-2-1; and coxae, 2-1-2-2.

Male.—Three heteromorphic males were found. Gnathosoma of heteromorphic males (fig. 8) with an elongated, narrow rostrum; peritremes strongly recurved as an inverted "V," palp femur elongate (236μ in male, 77μ in female), with a single basal tooth on palp tibial claw, and a somewhat reduced outer palp comb. Inner palp comb minutely barbed. Idiosomal plates cover entire dorsum, include

¹ All measurements given are averages of holotype and paratype specimens.



Figs. 3-9. *Acaropsella schmidtmani*, n. sp.: 3, right palpus of female, dorsal view; 4, marginal propodosomal setae II and III; 5, tarsus I, female; 6, tarsus II, female, inner face; 7, tarsus III, female; 8, gnathosoma, male; 9, tibia and tarsus III of male, dorsal view.

all dorsal setae. Humeral setae on separate platelets, form as in female. Eyes present. Male aedeagus 74μ long, exits posteriorly. Leg chaetotaxy as in female except for enlarged dorsal solenidion on tibia I, and presence of conspicuous solenidia on tibiae and tarsi III and IV (fig. 9).

Type specimens.—Holotype female, 1 paratype and 1 allotype are deposited in the United States National Museum. Six paratypes and 2 allotypes are deposited in the Department of Entomology and Parasitology, University of California, Berkeley.

Type locality and collection data.—The species was collected from the nest of a turkey vulture (*Cathartes aura septentrionalis* Wied) in the foothills of the Sierra Nevada mountains, California, about 4 miles north of Shingle Springs, El Dorado County. The approximate elevation was 1,300 feet. The nest was located on the ground between large rocks at the summit of a small knoll. It consisted of small broken branches and twigs, and a rich assortment of organic matter, such as feathers, feces, and keratinous skin fragments. The nest was unoccupied at the time of collection, but had been in use earlier in the year.

The species was collected September 16, 1970, by E. T. Schmidtman of the University of California, Davis, after whom it is named. The collection data was provided by Mr. Schmidtman.

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TETRAPALPUS TRINIDADENSIS, A NEW GENUS AND SPECIES OF CAVE MOTH FROM TRINIDAD (LEPIDOPTERA: TINEIDAE)

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ABSTRACT—*Tetrapalpus*, n. gen., is proposed for *T. trinidadensis*, n. sp., described from Mt. Tamana Caves, Trinidad. The species is a troglomorphic moth, the larvae of which feed primarily on the guano of a fruit eating bat, *Phyllostomus hastatus hastatus* (Pallas).

A new genus and species of cave dwelling moth is described herein, in response to a request from Miss Johanna Darlington who first sent the species to me for determination. Miss Darlington collected the moths in the course of her field investigations on the fauna of the Tamana Caves. I am indebted to her for all material used in preparing this paper. A mimeographed, preliminary report on the Tamana Caves